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STRUCTURING EDUCATION FOR BUSINESS MANAGEMENT.

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IN TERMS OF SERVICES RECEIVED, LOCAL SCHOOLS BENEFIT SUBSTANTIALLY FROM EDUCATIONAL BUSINESS MANAGEMENT. IN ORDER TO ISOLATE BUSINESS ADMINISTRATIVE PROBLEMS OF THE SCHOOL SYSTEM, AN ANALYSIS WAS CONDUCTED AT EACH OF 6 ADMINISTRATIVE SERVICE LEVELS--LOCAL (ATTENDANCE LEVEL), DISTRICT, AREA, REGIONAL, STATE, AND MULTI-STATE. AS A RESULT OF MERGED SERVICES, ESPECIALLY AT THE AREA LEVEL, IT WAS CONCLUDED THAT--(1) INCREASED ECONOMY OF OPERATION AND INCREASED SERVICE POTENTIAL RESULTED FROM THE FINANCIAL ABILITY OF LARGER ADMINISTRATIVE UNITS TO ATTRACT MORE HIGHLY SKILLED EMPLOYEES, (2) A MORE UNIFORM SERVICE COUPLED WITH INCREASED COMMUNITY RESPECT AND SUPPORT FOR PROGRAMS EXISTED (PRIMARILY AS A RESULT OF THE INCREASED AREA SERVED), (3) BENEFITS OBTAINED FAR OUTWEIGHED DISADVANTAGES WHICH AROSE WITH RESPECT TO TRANSPORTATION AND COMMUNICATION, AND (4) POOLED RESOURCES, PERSONNEL, AND FACILITIES RESULTED IN INCREASED ECONOMY AND EFFICIENCY. SINCE SIZE IS NOT THE ONLY FACTOR IN ACHIEVING ECONOMY, THE GOAL SHOULD BE THAT SIZE WHERE FURTHER INCREASE WOULD NOT SIGNIFICANTLY IMPROVE EFFICIENCY AND ECONOMY. A MODEL OF SCHOOL BUSINESS ADMINISTRATION SERVICES AT EACH OF THE 6 ADMINISTRATIVE LEVELS IS INCLUDED. (DA)

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STRUCTURING EDUCATION FOR BUSINESS MANAGEMENT

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April 17, 1968

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FOREWORD

The impact of scientific, technological, social and economic change on the American way of life necessitate a re-examination of the educational system. These changes modify established needs and create new needs to be met by the public school system. Instructional programs and supporting services must be developed to meet these needs.

The primary purposes of school district organization are to make possible: (1) the desired quality or excellence of the programs and services; (2) the efficiency of the organization for providing the programs and services; and (3) the economy of operation, or the maximum returns received for the tax dollar invested in education.

Education is big business. Operational expenses for public education take a significant portion of the taxpayers dollar. Budgeting and expending of the money must be conducted on a sound business basis to secure maximum returns on the dollar invested. Dr. Robert Whitt, Drake University, Des Moines, Iowa, in cooperation with Dr. Carl Wilsey, University of Illinois, Urbana, Illinois, were invited to study the business management of public education from the standpoint of the recommended structure for excellence in the business function, with efficiency of organization and economy of operation. This paper is their report to the Project and to the four states.

The value of this paper rests upon its utilization by those with advisory and/or decision making responsibilities about the educational structure in each state. It represents a beginning point for further study and evaluation, and for establishing criteria upon which guidelines can be developed for effective and constructive school district organization.

Respectfully submitted,

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April 17, 1968

STRUCTURING EDUCATION FOR BUSINESS MANAGEMENT

INTRODUCTION

Studies of school district organization generally include an examination of enrollments, average daily attendance, assessed valuation, potential and predicted growth rate, bonded indebtedness, school district boundaries, transportation, special services and other educational factors, but little concern or attention is given to the business functions.

It is easy to discuss physical size and geographical boundaries, but it is very difficult to grapple with the more nebulous concept of service, particularly in an area that covers such extremes.

When one attempts to define School Business Management, it can best be delimited in terms of functions and responsibilities. The following is an abbreviated list of areas that are considered relevant to business management as it relates to educational administration:

1. Personnel administration
2. Office management
3. Accounting
4. Budget making
5. School building construction and planning
6. School building operation
7. School building maintenance
8. Purchasing
9. Cafeteria management
10. Transportation
11. Insurance
12. School surveys and population studies
13. School law[1]

A longer list and more complete is found in Bulletin 21 of the Association of School Business Officials of the United States and Canada.

Major Areas of Responsibility of School Business Administrators.

A. Budgeting and Financial Planning
B. Purchasing and Supply Management
C. Plant Planning and Construction
D. School-Community Relations
E. Personnel Management
F. In-Service Training
G. Operation and Maintenance of Plant
H. Transportation
I. Food Services
J. Accounting and Reporting
K. Office Management

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[1]Roe, William H., School Business Management (New York: McGraw-Hill Book Co., 1961), pp. 9-10.

Tabulation of Typical Duties.

I. Financial Planning
II. Accounting
III. Debt Service and Capital Fund Management
IV. Auditing
V. Purchasing and Supply Management
VI. School Plant Planning and Construction
VII. Operation of Plant-Custodial, Gardening, Engineering Services
VIII. Maintenance of Plant
IX. Real Estate Management
X. Personnel Management, Records, Supervision of noninstructional staff, Relationships with instructional staff
XI. Permanent Property Records and Custody of Legal Papers
XII. Transportation of Pupils
XIII. Food Service Operations
XIV. Insurance
XV. Cost Analysis
XVI. Reporting
XVII. Board Policies and Administrative Procedures as Related to Fiscal and Non-institutional Matters
XVIII. Responsibilities for School Assessment, Levy, and Tax Collection Procedures as may be Set by Law.[2]

Thus it is rather clear that to define this function within narrow limits is noticeably complicated. Because of the broad nature of the job description and because of the lack of a systematic and disciplined treatment of school business management, it becomes difficult to propose criteria and guidelines that are defensible in terms of scientific research.

STATEMENT OF PROBLEM

The problem is to propose criteria and guidelines for the establishment of school districts which would make possible efficient and effective school business management, with economy of operation; to give consideration to optimum and minimum criteria for varying geographic factors. In working with this problem, primary consideration will be given to a system of functional administrative units that will provide quality programs and services, efficiently and economically in a rapidly changing social and economic society.

DEFINITION OF TERMS

Attendance Unit

This shall mean the local school building including the administrative, professional and non-professional staff along with the students in attendance.

District or Local Administrative Unit

This shall mean the locally constituted school district, as legally defined in each state, operating under a local board of education and

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[2]Bulletin No. 21, "The School Business Administrator", Chicago: Association of School Business Officials, 1960. pp. 16, 17, 18.

carrying out the various activities prescribed by law.

Area or Intermediate Administrative Unit
: This shall mean a geographical area larger than a district; an area that may include a county or more than one county contiguous to each other.

Regional Administrative Unit
: This shall mean a larger geographical region than an area. It may include several intermediate units held together because of a regional urban area or a natural geographical region.

State
: This is the structure responsible for education in a given geographical area.

Multi-State
: This is the cooperation of two or more states in providing services, direct or indirect.

PURPOSES OF THIS PAPER

The purposes of this paper are to identify the problems of school business administration through an analysis of:

1. Those services best provided at the attendance level, with economy, efficiency and consistent with accepted practices.

2. Those services that can best be accomplished at the district level with economy and efficiency and consistent with accepted practices.

3. Those services that can best be accomplished at the area level with economy and efficiency and consistent with accepted practices.

4. Those services that can best be accomplished at the regional level with economy and efficiency and consistent with accepted practices.

5. Those services that can best be accomplished at the state level with economy and efficiency and consistent with accepted practices.

6. Those services that can best be accomplished at a multi-state level with economy and efficiency and consistent with accepted practices.

SCHOOL BUSINESS MANAGEMENT FUNCTIONS AT THE LOCAL ATTENDANCE CENTER

The local attendance center greatly benefits from educational business management in terms of services received. An effective and economic operation will yield services that are connected with all the facets of school business administration. To provide these services, the individual attendance center must be large enough to warrant the extension of all known assistance. There is evidence that elementary centers should be large enough to provide services for between 300 to 500 students, K-6, with apparent trends toward a maximum of 900. Limits on Jr. High Schools, 7-9, would seem to be from 300 to 500 with a minimum recommendation of 100 in grade nine with apparent trends near 200. Senior high school enrollment, grades 10-12,

range from a minimum recommended 450 to 1800 with trends toward 2500.[3]

Similar figures are supported by Morphet, Reller and Johns.

> Elementary schools with kindergarten through six might range from approximately 200 to 700. A student population of 300 to 900 would be regarded favorably for a junior high school. Senior high schools with a population of 400 to 1500 would appear desirable.[4]

However, the educational park concept would indicate that urban centers may be moving to extremely large junior and senior high school attendance centers. Some of these centers may enroll upwards of 20,000 students.

> ....consideration of a plan whereby a city of 100,000 population might have only one school for its 15,000 or even 20,000 students. A school of this size could afford to employ specialists whose energies would not be wasted in traveling from school to school.[5]

The following list itemizes the service functions that should be provided to a local attendance unit when that unit falls within the minimum and maximum sizes that have been identified in various studies and research.

1. Provision for hiring, placement, supervision and dismissal of non-certificated personnel.
2. Provision for a system of systems of effective and efficient office management.
3. Provision for centralized accounting services.
4. Provision for school building maintenance at a centralized level.
5. Provision for a centralized purchasing program.
6. Provision for cafeteria assistance and food services.
7. Provision for student transportation.
8. Assistance in budget making and control.
9. Assistance in building operation.

The primary purpose of educational business service is to provide support to the educational functions of a school. Education takes place at the attendance unit. Few school business activities should then take place within these confines. Business management activities should take place at a higher level with service the essential role within the individual school.

DISTRICT ADMINISTRATIVE UNIT

The local district is the basic administrative unit in American Education. Here the local board of education establishes policy and the superintendent operates with his staff in implementing the basic wishes of the constituency.

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[3]Inman, William E., "The Factor of Size and School District Organization", Unpublished Paper, The Great Plains Project, Lincoln, Nebraska, 1967.

[4]Morphet, Edgar, Johns, Roe L., Reller, Theodore L. Educational Organization and Administration (Englewood Cliffs, New Jersey, McGraw-Hill, Inc., 1967) p. 324.

[5]Ibid., p. 315.

The functions of school business management have generally been handled at the central office level of individual districts, although some districts have delegated some functions, such as purchasing, to the various schools in the district. Whether the central operation of all functions has been uniformly economical or effective is a matter to be questioned. However, it is at this level of educational administration that the question is most frequently asked, "When does a school system need a school business administrator?" Bulletin No. 21 of the American School Business Officials identifies the following basic criteria for making this decision.

1. Does the district do its own bookkeeping?
2. Does the district write its own warrants?
3. Does the district operate a pupil transportation program?
4. Does the district operate a food services program?
5. Is the district growing rapidly?
6. Is the district engaged in a building program or a planned program?
7. Does the district have a separate research office or is the business department expected to do considerable research?
8. Is the school district required to make its own planning studies?
9. Is the business manager expected to exercise considerable supervision and direction for non-certificated classified employees?
10. Is the district custodian of its own funds?
11. Does the district have fiscal independence?[6]

If a majority of the above questions can be answered in the affirmative, then there is good evidence to indicate a need for a qualified school business manager.

In identifying the qualifications of such an individual, the same reference lists the preparation that is desirable.

> In the preparation of future school business administrators, having chief responsibility for all school business functions, it is probably that a minimum of a B.S. or B.A. degree, with appropriate systematic study in school business administration, general administration, school law, finance and accounting, school plant operation, planning and construction, school curriculum, management techniques, and personnel work, as well as broad general education, will be required. In many communities no administrative posts will be assigned to persons having less than a Master's degree .....Preference will be given to those whose training and experience include some aspect of education or teaching.[7]

Concomitant with this problem of "is a manager necessary" comes the question of what size should a school district be in order to provide adequate services to the local school.

There is evidence to suggest that the size of an ideal school district has moved upward and is continuing to be evaluated in terms of a larger rather than a smaller dimension. This dimension would include both numbers of students and geographical proportions as well.

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[6]Hill, Fredrick W. The School Business Administrator, Bulletin No. 21, Association of School Business Officials, Chicago, 1960.

[7]Ibid., pp. 30-31.

In defining the size of a school district, there is a large and conflicting array of figures, ranging from a minimum of 1000 (Washington State Department of Education) to a maximum of 50,000 (Ohio Department of Elementary School Principals.[8]

Research suggests that larger school districts cost less to operate. In a study by Hanson in 1963, there is evidence to indicate costs per pupil decrease with school district size.

> The costs per pupil were found to decrease in every state in the sample. The median difference in per-pupil costs in districts with 1500 students and those districts whose cost were lowest was about $27 per pupil.
>
> Table 1, below, shows the dollar decline in unit costs as districts increase in size from 1500 students up to that size where costs were found to be lowest.[9]

State	Difference in cost per student	Most Economical Size (Students)
Nebraska	$15	20,000
New Jersey	19	30,000
California	21	50,000
Massachusetts	26	79,028
Washington	27	91,762
Oregon	28	50,000
New Mexico	33	44,000
Wisconsin	36	86,667
New York	96	160,000
Median	27	50,000

Given a business manager and a school district with enough pupils to operate effectively and economically, somewhere between 1500 and 2500 as a minimum and 50,000 as a maximum, then what services can be recommended at this level.

A primary service to be provided in business management is Budget Making. The school budget is an expression of the educational program and philosophy of the district. The business manager is in a position to take the leadership in formulating plans that include:

1. Materials for budget preparation.
2. Budget calendar.
3. Formalizing the budget.
4. Financing the budget.
5. Publishing the budget.
6. Controlling the budget.

A second area in which service may be provided to the local school is within the scope of Fund Accounting.

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[8]Inman, William E., op. cit., p. 9.

[9]Hanson, Nels W. "The Influence of Size on Per Pupil Costs in Public Schools", School Business Affairs, November 1965, p. 249.

Every school district needs to maintain complete books and records of financial expenditures and use of school property, using standardized forms and accounting procedures, authorized by local board action. This system requires that the local board receive from the superintendent, via the business manager, monthly reports on the current status of all district funds and accounts, and in turn, these transactions will be formalized by placing them in the district minutes.

Accounting is now changing rapidly due to the utilization of mechanical equipment and/or a data processing installation that enables districts to do a more complete job, faster and more accurate with less manpower.

A third function of the district business manager would be to help standardize office procedures for each attendance unit. Research Bulletin No. 4 of the Association of School Business Officials, lists guiding principles to follow in office management. They include the following:

1. Office organization.
2. Staff relationships.
3. Office policies.
4. Personnel administration.
5. Communications.
6. Forms.
7. Office layout and equipment.[10]

In the preparation of this paper, and in visiting many small school districts, it has been evident that the local school needs much help in organizing and developing good office practices. In a majority of the schools, the lack of organization and accepted procedures is obvious.

School Plant Planning, a fourth consideration, is a particular function at this level of administration. The local board, with the citizens in the various attendance districts, need to become involved in a mutuality of understanding as it relates to the planning, construction and use of school facilities. If the concept of the Intentional Community with the community school as a necessary adjunct of this viable partnership is to be the goal of reorganization, then the local district must take leadership in this area. Business managers play a large and important role in this function. Roe[11] lists twenty-eight procedural steps in the planning and construction of an educational facility. The local district cannot escape this role, since much of the financing of school buildings will probably continue to be carried out at the local level, at least in the foreseeable future.

A fifth activity at the level of the district administrative unit would be Operations. The Association of School Business Officials identifies these operations in Research Bulletin No. 6. A list of these activities include:

1. Housekeeping (cleaning and sanitation).
2. Operation of mechanical and electrical plant.
3. Safety and security.

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[10]Bragin, Jeanette., "Guiding Principles and Practices in Office Management", Association of School Business Officials, Bulletin No. 4, Chicago, 1966.

[11]Roe, William H., op. cit., pp. 178-179.

4. Equipment servicing and operation.
5. Upkeep of grounds.
6. Minor repairs.[12]

To be sure, the local principal provides a large amount of the day-to-day supervision of the operations (custodial) program, but the central office still retains primary responsibility for purchasing custodial supplies, over-all supervision of the custodial service, setting district-wide standards, assignment of personnel, after-school use of facilities by community groups, and so forth.

A sixth area of concern at the district level would be Cafeteria Management and Food Preparation.

> School cafeterias exist primarily to make available to pupils a nourishing hot lunch at the lowest possible rates. Besides this primary function, there are educational advantages in a cafeteria activity. Properly intergrated into the total program, it provides opportunity for many learning experiences in the areas of health, social living and civic responsibility.[13]

The local district develops the following:

1. Policies for operation.
2. Administrative procedures.
3. Cafeteria accounting.
4. Inventories and inventory control.
5. Employee records.

Central kitchens can be developed by a district or by a larger administrative unit. This enables provision of better service at a more reasonable cost. School kitchens seem to be disappearing.

> Central kitchens,this plan concentrates food purchasing, menu planning and meal preparation in one or more central locations. Vehicles with specially designed vacuum containers and heated compartments are used to distribute the food to individual schools. Central kitchens have gained initial acceptance in the largest cities, where they have generally been successful. But more and more smaller cities, with no more than 100 or 150 cafeteria employees are investigating this method of food preparation.[14]

Advantages from such kitchens include:

1. Lower labor costs because of more efficient methods of food preparation.
2. Better purchasing and inventory control.
3. Uniformly high quality standards.

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[12]Schaefer, John W., "What is Operations", Association of School Business Officials, Research Bulletin No. 6, Chicago, 1967.

[13]Superintendent of Schools, San Diego County, California, "A Guide to School Business Services", Office of the Superintendent of Schools, San Diego County, California, June 1956., p. 38.

[14]Casey, Leo M., op. cit., p. 104.

4. Reduced total expenditures for food preparation equipment because of the elimination of unit kitchens in individual schools.
5. Considerably less space required in the school buildings.[15]

A seventh area of concern at the district level would be Transportation, with all that this entails. Transportation will be covered more fully later.

An eighth area of concern is Purchasing. Local district purchasing, except in very large districts, may be a thing of the past. Because of this, purchasing will be covered in detail at a later time.

Maintenance of property, which includes upkeep of grounds, repairs to buildings and repair of equipment, will probably continue to be handled at the district level rather than the school level because of economies of operation. In sparsely populated areas, greater economy might be achieved by going to a regional or area-wide organization for these functions. This was evidenced when the author visited with over twenty small school districts in Iowa and discussed the possibility of joint maintenance operations. District after district expressed the concern of being able to find qualified mechanics, custodians, skilled craftsmen, etc. The problem is not one of knowing how or what to do, but the problem is to find skilled personnel in areas of sparsity.

The last area, and one in particular that needs attention is the one concerned with Student Activity Accounts.

In our present period of educational growth, there is a plethora of school activities, with the attendant collection of funds.

The rationale for collecting and expending funds for student activities is to promote the well being of the students and their education.

> The raising and expending of activity funds by student bodies can have only one basic end in view: to promote the general welfare, education and morale of all the pupils and to finance the normal legitimate extra-curricular activities of the student body organization without embarassment to any individual student.[16]

The concept of normal and legitimate is cogent to the issue. The funds are never to be used by the principal or superintendent as a personal "slush fund", to buy meals for visitors, for travel to games, etc.

> The management of student activity funds shall be in accordance with sound business practices, including sound secretary and accounting practices as well as audits in the same manner as regular school funds.[17]

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[15] Ibid., p. 105.

[16] "A Manual of Accounting Principles and Procedures for Student Activity Funds", Association of School Business Officials, Bulletin No. 17, Chicago, 1956, p. 10.

[17] Ibid., p. 10.

AREA OR INTERMEDIATE ADMINISTRATIVE UNIT

Intermediate Administrative Units are becoming recognized as a future type of district organization, and not too far in the future at that. There is every reason to believe that these units will become more and more prevalent in the near future. There is also evidence to believe that these units may move forward more rapidly than previously believed.

> In this time of rapid technological, social and economic change, there is need in the over-all administrative structure of publication for a unit with the responsibility and ability to cope with new problems and implement new programs. A dynamic, flexible intermediate unit that is task-force oriented can respond best to the workload demands created by these conditions. The State Department of Education is too remote and districts are too involved to function adequately without the services such a unit can provide.
>
> The intermediate unit should provide a level of leadership support and services to all districts, regardless of size.
>
> No definite pattern can be applied through the state in determining which specific functions or services belong to the school district. When a district is unable to meet adequately the needs of children because of sparsity of population, large concentrations of culturally deprived children, or other fundamental constraints, specific services may have to be provided by the intermediate unit.[18]

Size of the intermediate unit or area unit may vary from state to state. The largest unit in California has nearly 2 million pupils and encompasses some 85 districts. The smallest intermediate district in California has less than 200 pupils and only one local school district (In reality one district and two superintendents). Michigan is contemplating a change in their present system which now includes an intermediate district that must have 5,000 pupils enrolled, regardless of geographical size. There is consideration to raise the pupil enrollment to 10,000. At present Michigan has 60 intermediate units and is giving consideration to reducing this number to forty-five.

Examples of business services that can be provided by this unit include the following:

1. General Functions.
2. Accounting Functions.
3. Maintenance; School Building and School Bus.
4. Purchasing Functions.
5. Transportation.
6. Data Processing.

General Functions

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[18]California Association of County Superintendents, "The Future of the Intermediate Unit", Publication by C.A.C.S., 1966, pp. 1-2.

The intermediate unit can counsel and advise districts in the development of superior business practices, in the preparation of budgets and in the planning of special expenditure programs, such as Federal and special funded programs.

Districts need help in administering the statutory requirements passed by the legislature. Rules and regulations of the State Department of Public Instruction need interpretation and definition.

Functions of approval are essential to good business administration. Approval of budgets, contracts, expenditures, transfers, special funds, etc. are a service rendered by this unit.

Auditing is a requirement to fiscal soundness and requires the approval of an outside agency.

Accounting Functions

The area administrative unit is able to do a great deal in this area. Because this unit represents a larger area, and because the assessment base is larger, data-processing equipment can be made available. This would enable the district to provide:

1. Accounting of receipts and expenditures for constitutent districts.

2. Payroll functions; preparation of payroll, making deductions, and keeping payroll records up to date.

3. Maintaining employment and retirement system records.

4. Other accounting functions as may be required.

There may be a criticism that this is too far from the local district; however, modern data processing equipment and the records from this equipment are as close as the nearest telephone. All school districts in Oakland County, Michigan will be tied into the data-processing center, districts representing some 250,000 students, and will be able to have instantaneous reports and information on students, accounts, attendance, etc. by using the tele-data equipment available in each district and in each school building.

Maintenance Functions

Maintenance relys on people. There is a great deal of work that needs to be done in the area of school building maintenance. There is a question as to whether there are sufficiently qualified people at the local level to do a professional job. The intermediate unit can provide selection and service standards that are of a higher level than the local school district. There is a great deal of concern for school bus maintenance. Districts are finding it increasingly difficult to provide adequate service. Would it not be feasible to have an area garage and service facilities in which the full time mechanics specialize in school bus work, properly supervised and controlled by an agency that is equipped to provide such services? Other areas of maintenance can also be developed to a higher level.

In a unified district all of these functions my be consolidated and coordinated for greater enconomy and

> efficiency. Since they are not educational functions, there is no need to break them down by attendance centers or neighborhood educational units, as so desirable in the instructional program. On the contrary, these functions usually are performed more effectively when they are centralized.[19]

Purchasing Functions

When all the various business functions are considered, the one function at this level that demands particular attention is purchasing. Cooperative purchasing is a development with probably less than 10% of the 2000 ASBO member districts participating in such programs.[20] However, the advantages are recognized and need to be considered.

1. There is evidence that cooperative purchasing is of considerable value. In cooperative purchasing agreements, several school districts together submit a single large purchase requirement rather than several small individual purchases of the same items.

2. Cooperative buying with discretion selection can be easily achieved through the intermediate administration unit which is rapidly becoming a service unit to local school districts.

3. Cooperative purchasing agreements clearly indicate their usefulness. Saving can result through buying in carload lots and case lots rather than small units.

4. Where cooperative buying has taken place, it has proved to both practical and economical. Savings from cooperative programs were reported from 17 to 43.5 percent. Many schools have discovered the advantage of cooperative buying with city or county governments.

5. An orderly calendar of purchasing requirements during slack manufacturer season can be determined to provide an additional cost reduction and contribute to production volume during these periods.

6. More often than not the same supplier offers services to the same locality rather than quote to representative bids with a diversity of crash deadlines. A smaller number of bids in volume can be attended to more efficiently in cost analysis utilizing carload lots in many instances from their respective factory suppliers. Service and delivery schedules can be projected.[21]

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[19]San Joaquin County, California Unification Studies, "Proposed Lodi Area Unified School District", January 6, 1966, County Office, San Joaquin County, California, Stockton, California. (Fugitive Material)

[20]Section Meeting Report, "Purchasing and Supply Management", 5th Annual Volume of Proceedings, Association of School Business Officials of the United States and Canada, October 15-19, 1962, pp. 206-207.

[21]Ibid., pp. 207-208.

Several counties in upper-western New York State have developed a cooperative purchasing combine to purchase fuel oil, gas and oil, busses, transportation contracts, cafeteria supplies, food, bread products, ice-cream, paper supplies and janitorial supplies. A summary statement indicates their acceptance of this program.

> The techniques of the purchase function have been explored in great depth not only by school purchasing officials but by all sectors of the economy both private and public. The legal and practical aspects of competitive bidding as a part of purchasing are well known to every competent purchasing official. By and large the era of the small independent vendor with limited capital and market opportunities has given way to mass distribution of an extremely broad range of products with widely varying characteristics and prices. If school districts are to share fully in the economic advantages of mass distribution, they must of necessity explore the techniques of mass acquisition.[22]

This same area has reported that there has been a savings of between 12 and 30 percent on common items used by participating school districts. Oakland County, Michigan has had the same results. There they were able to save between $14 and $20 dollars on group purchases of typewriters. Nassau County, New York has been cooperatively purchasing fuel oil, gas and oil, busses, food, bread products, ice cream, milk products, and cooperatively bidding on transportation services. An interesting quote illustrates their evidenced savings:

> One cannot expect the average wholesaler to be exuberant about bidding whether it be by one school district or several combined. It is comparable to asking the full service department store to rush across the street to greet the new discount merchandiser.[23]

Training Functions

Another aspect of the area or intermediate unit should be the function of training personnel. The Oakland County Schools in Michigan have actively pursued the concept of development, maintenance and implementation of in-service educational programs for the non-instructional personnel of local school districts.[24]

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[22]Position Paper, Mid-Hudson Chapter, Nassau County Chapter, Southern Tier Chapter, Rochester Area Chapter, New York, 1966. (Unpublished Paper, in files of Association of School Business Officials Research Center, Chicago, Illinois).

[23]Ibid., p. 9.

[24]Job Description Title, Oakland County Intermediate School District, Michigan: Director of Personnel Job Description: "The Intermediate School District, Middle Echelon of Michigan's Three-Echelon State System of Education", Michigan Association of Intermediate School Administrators, January, 1967.

In rural states in particular, this function could be critical. Bus drivers, cafeteria employees familiar with food handling procedures, maintenance personnel, custodial employees and even clerical and secretarial personnel should be trained and supplied to the individual districts. In a non-linear, rapidly changing society the local district will continue to have a very difficult time in finding adequate replacements for service personnel. A large geographical area with a much larger population pool could be one answer to meeting the needs of the local district and the local attendance center.

Transportation Functions

Ten million students ride to and from school each day in school busses. this is nearly 20% of the total school population of the United States. Such a large proportion of the population, with the concomitant costs involved, requires more than passing concern.

> School officials now regard school transportation as one of their major responsibilities. It is almost universally regarded as an integral part of the total educational program with the general objectives of providing equalization of educational opportunity and broadening the scope of educational programs. All children and youth, regardless of where they live, should have equal access to the services of a good school. It is often more practicable to attain this objective through transportation rather than by placing schools within walking distance of children. Also, the transportation program, if used wisely, can immeasurably broaden the scope of educational opportunities afforded children.[25]

An area or intermediate unit could well be responsible for development of board policies, use computers to develop bus routes, training of bus drivers, inspection services, purchase of busses on an area wide basis, approval of special transportation contracts and maintenance services for transportation equipment.

San Diego County, California has spent a great deal of time and effort in developing a continuing program in this area. Oakland County, Michigan has likewise developed a colleagueal role in transportation services.

> The primary responsibility and function in the corporation (Oakland Intermediate School District) is the development, maintenance and operation of a buss driver education program for the bus drivers of the constituent school districts. The law enforcement function of the intermediate school district of the school transportation code which includes the audit of bus routes and the certification of the annual mileage by the school district is assured. Also, the director consults with directors

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[25]Council of Chief State School Officers, "The Responsibilities of State Departments of Education for Pupil Transportation Services and School Plant Services", Washington, D. C., 1958, pp. 8, 9, 10.

> of transportation of the local school districts on current problems and long range planning.[26]

In the future, as our society changes more and more rapidly, equal educational opportunity will become more of a vital issue than a present, although some may feel that is the real crux of our immediate problem. However, it is the opinion of this writer that the full impact of equality and quality is yet to hit the educational scene. Because of this, school bus transportation will become more and more important and at the same time more and more of an issue. Transportation is expensive, costing from just a few dollars to well over a hundred dollars per pupil per year.

> Equalization of educational opportunity is vital to democracy. It is the birthright of every American youth to have the opportunity to develop his constructive capacities to the utmost. At the same time America can flourish and prosper and be truly democratic only if the talents of all are developed and allowed to contribute to the well-being of the nation..... A factor which plays a major role in safeguarding equal educational opportunity is the school transportation system which serves pupils in rural and suburban areas.[27]

It is evident from this quote and others that school transportation plays a vital role in the educational process. A more thorough understanding and support of educational transportation needs to be considered. With the many problems at the local level, assistance from a higher level is mandatory. The area or intermediate unit can play a commanding role in the development of high standards of quality.

Data Processing Functions

As has been previously mentioned, our society is changing quite rapidly. America has become a protean society and a non-linear society that has no choice but to be swept along at a fantastic speed, appearing at times to be without sense of direction and purpose in its actions.

A great deal of this instability is due to the technological revolution brought about by the use of data processing equipment and the computer that continues to feed this electronic monolith. Traditional approaches to the problems in education have been found wanting. On the horizon stands a "society-eating-dragon", waiting expectantly for this dynamic culture to falter. Within this structure, education plays a consuming role. Because education is so closely related to the success of this society, it is imperative that the use of this equipment and the processes allied to it become part of the business and learning process.

> The computer is something to get excited about. Some school administrators may wonder whether the computer is a friend or an enemy, but one thing is certain: School Administration is destined to be changed radically by it. It is a source of hope for the admin-

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[26]Oakland County Schools, op. cit., p. 19.

[27]Roe, William H. op. cit., p. 227.

> istrator confronted with many complex problems that thus far have defied solution.[28]

It is particularly important that the area or intermediate unit give serious consideration to this developing process. This is evident when research is considered. Costs for local districts are prohibitive, even to the most wealthy political subdivisions.

In a state pilot project in California, this whole problem was attacked in a systematic way and definite conclusions were drawn.

> A major concept in the program of the State Pilot Center was the feasibility of establishing regional centers for the processing of school data. Under this arrangement several districts within a region could utilize central equipment, staffing and facilities and thereby realize a greater budget economy and greater uniformity in procedures and products. State funds might conceivably be allocated for such a purpose.[29]

This project limited itself to attendance accounting, grade reporting, standardized testing, by products of these basic applications and some cumulative record keeping. This project worked with a student population of some 35,000 students. The costs of this program were not exceedingly high.

> On the basis of the experience gained by the State Pilot Project, the staff personnel estimated that data-processing services for a school population of 35,000 would cost about $2.28 per student. This was the figure computed after breaking down the following costs given for a year: equipment, $33,000; materials and supplies, $10,000; salaries, $37,000.[30]

There should be consideration given to the concept regarding the minimum size district in terms of equipment, staff personnel and other specific needs.

> The project staff estimated that for a unified school district of approximately 5,000 students, the necessary data-processing equipment should consist of a key punch, a verifier, a sorter, an interpreter, a reproducing punch, a tabulator and possibly a collator. The processing staff should comprise at least two full-time employees, one to

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[28] AASA Committee on Data Processing, "Educational Data Processing and the School Administrator", American Association of School Administrators, Washington, D. C., 1967, p. X.

[29] Richmond City Schools, Richmond, California: "A Report of an Experiment-The State Pilot Project in Educational Data Processing", 1964, p. 18.

[30] Ibid., p. 29.

> operate the key punch and tabulating machine, one to do both types of work and be able to attend to machine wiring as well--and a third employee to act as a back-up operator for each of the two regulars on the basis of such part-time assignments as might be needed. The rental cost for equipment would range between $400 and $900 per month, allowing for variations in the number and kinds of applications. An average cost might be $600 or $700.[31]

A larger district would provide better services and more economical operations.

> Referring to a unified school district that would have as many as 10,000 students and that would be going into data-processing for the first time, the project staff estimated that a district of this size should have EDP (Educational Data Processing) personnel and facilities equivalent to those of a district with 5,000, but with this important refinement: the tabulating and accounting machine should be one that has great abilities. Generally in this situation the tabulator would be doing a good deal more than financial accounting as a major job; it would also be doing pupil personnel jobs involving a large amount of alphabetic data. Although the staff size would be about the same, additional part time help might be required at times. Machine rental costs would approximately be the same as for districts having less than 10,000 enrollees downward to 5,000; possibly there would be a slight increase in the costs due to the acquisition of a higher-ability tabulator. Staff salaries would be approximately the same.[32]

The same report indicates that districts of 15,000 or more would use approximately the same amount of equipment, only with higher ability. Here ability refers to the efficiency of the equipment and its adequacy to store information, print at a more rapid rate, versatility, handling of multiple tasks and the technical aspects of the equipment in terms of speed and range of programming. Rental would run approximately $1,500 to $2,500 a month. Staff would remain about the same, but there would be more salary because of additional time.

A district with a student population of 25,000 or more, the needs for data-processing services are typically greater and of course much more complex.

> In districts of this type and of this range and size, the trend is away from mechanized equipment of slow-to-moderate speeds toward electronic equipment of high speeds with optimum ability. While monthly costs for renting electronic machines would be greater and the

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[31] Ibid., p. 35.

[32] Ibid., p. 37.

> salaries paid key personnel for programming, analysis and management would be generally higher. The increased expenses would be considerably offset, over a period of time, by the elimination of several pieces of prior equipment. The rental costs for maintaining an installation of this magnitude, on the basis of a computer system, would amount to approximately $3,750 per month, or $45,000 per year.[33]

The costs of data-processing are recognized. The returns from these services are not as easily recognized or accepted. California has taken a serious look at this whole problem and has made recommendations concerning the addition of this service to the educational structure.

> Small districts of less than 10,000 average daily attendance may wish to send original-source documents (instructional and pupil) directly to the regional center for processing. These districts typically do not have sufficient volume to warrant the installation of their own data processing equipment.[34]

This study done by the Intermediate Units in California consider districts of medium size, somewhere between 10,000 to 30,000, ready for minimal equipment necessary to convert information from source documents into punch card or magnetic tape form. Larger school districts, beyond 30,000 could have a fairly complete line of equipment. However, they recognize that their is a great potential for this equipment and much needs to be done.

> The greatest unrealized potential of data processing is in the instructional fields, such as the instructional area of programmed learning and the future development of instructional material retrieval systems.[35]

Regional Units of Administration

In the future, several area or intermediate units may "hook-up" in a regional complex to provide services that cannot be met at sub-levels of administration.

Large computer based programs will by necessity be regionalized because of the expenses involved. However, the technology of these machines will make it feasible and not in the least unwieldy. One caution must be given, however. This has been recognized by the intermediate-units in California.

> In order for a regional data processing center to be successful, it must be responsible to customer needs. District-level personnel should have a voice in determining the "output", i.e., the information and reports to be furnished to the districts. This decision determines the "input", i.e., the kind of data that must be fed into the machine. Without local support, a center cannot be successful.[36]

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[33] Ibid., pp. 39-40.

[34] "The Future of the Intermediate Unit, op. cit., p. 48.

[35] Ibid., p. 49.

[36] Ibid., p. 49

The size of a region may be debateable. However, Michigan has given consideration to a region encompassing around 250,000 students. In the state of Iowa this would make approximately three regions; Missouri five regions, South Dakota would have a state-wide network and in Nebraska, two regions would serve the entire state. There is evidence to indicate that this type of service is a step that must be taken if computers and education are to mesh properly.

Purchasing is another function that could take place at this level of administration. Large purchases, bidding on multiple buildings that are needed, purchasing of land, insurance contracts, etc., could well be a regional function.

State Level Functions

At the state level there are two functions with recommendations that fit particularly well. The first recommendation is that states, either singly or in groups, purchase all school busses and school bus equipment. The problems of safety, economy, adequacy and efficiency should not be left to the local level. Recent inspections in Iowa indicated that 50% of the school busses did not meet National Safety Standards. Problems such as these could be eliminated if the states would purchase the busses at the state level and provide consistent updating of these standards at time of purchase. Since the states do set the standards, the burden of maintaining these regulations should be placed upon the state.

A second function that should be given serious consideration would be the establishment of state insurance. The success of the state retirement systems is evidence that more protection can be provided by the state than through commercial companies and at a much cheaper rate.

The states of Alabama, North Dakota and South Carolina have provided insurance for school buildings for many years at a substantial rate of savings to districts, some 40% less than commercial rates in those states.

The Association of School Business Official of the United States and Canada have published Bulletin No. 18, "Fire Insurance Principles and Practices". In this research bulletin they indicate that insurance for school districts is far too high.

> In discussing public schools they indicate:
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> This is a return of 31.81 cents of each dollar paid for insurance. When we consider that the average loss ratio for all fire insurance companies during the year 1954 was 57.2 cents per premium dollar collected, and that with this loss ratio companies could still make a profit of six cents per premium dollar, which is one cent above the recognized legitimate level, school business officials can well ask where the additional 25.4 cents is going.[37]

This would indicate that states could and should become involved in writing insurance for school districts, both in terms of quality and quantity of savings.

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[37]Salmon, Paul B., "Fire Insurance Principles and Practices", Research Bulletin No. 18, Association of School Business Officials, Chicago, 1958, p. 39.

Multi-State Functions

There is reason to believe that states in the future may become regionalized into compacts that will provide services of various types and cooperate in terms of education. Research may be the key area of cooperation, however, as yet little is being done. However, the fact that "The Great Plains School Organization Project" is in operation gives a clue to the future programs that may be developed.

Summary Statement

At a meeting in Omaha, Nebraska in November 1967, several professional business managers met to hold a "Brain storming session" concerning the problems of business management functions and school district organization. In general, the following conclusions were reached:

1. There seems to be reasonable expectations for economy to be realized through merger of services if for no other reason than volume. This is particularly true at the intermediate or area level of administration.

2. Larger, merged districts have the money to hire more highly skilled employees with the resultant improvement in leadership and knowledge of business processes.

3. Uniformity of service over a broader area is desirable for both economic and educational reasons.

4. Benefits to be derived overshadow the disadvantages which may arise (i.e., greater distances traveled, communication problems, etc.).

5. Community respect for, and support of, programs is enhanced by involving a larger area (i.e., more respect for a larger operation).

6. Efficiency and economy are realized because of the pooling of resources in terms of personnel and facilities.

The following is a model of school business administration services provided at various levels to provide economy and effectiveness with efficiency.

Local Attendance Center

K-6 . . . . 300 to 500 plus students
Jr. High. . 300 to 500 plus students
Sr. High. . 450 to 1800 plus students

A SERVICE RECEIVING ROLE THAT INCLUDES:

a. Certificated personnel
b. Office management assistance
c. Assistance in budget making
d. Budget control procedures
e. Assistance in building operations
f. Assistance in building maintenance
g. Assistance in purchasing
h. Assistance in food services
i. Assistance in transportation

District or Administrative Unit

1,500 to 2,000	Minimum
5,000 to 10,000	Desirable
10,000 to 30,000	Optimum
50,000	Maximum

A SERVICE PROVIDING AND SUPPORTIVE ROLE TO LOCAL ATTENDANCE CENTER THAT INCLUDES:

a. Administrative leadership
b. Fund accounting
c. Office procedures and standards
d. School plant planning
e. Cafeteria management and food preparation
f. Purchasing
g. Transportation
h. Maintenance
i. Operations, supervision, etc.
j. School activity accounting
k. Data processing

Area or Intermediate Administrative Unit

15,000	to	30,000	Minimum
30,000	to	50,000	Optimum
50,000	to	100,000	Maximum

A SERVICE PROVIDING AND SUPPORTIVE ROLE TO THE DISTRICT OR ADMINISTRATIVE UNIT THAT INCLUDES:

a. General functions
b. Maintenance
c. Purchasing
d. Transportation
e. Data processing
f. Research and development

Inter-Area Cooperative Units (Regional)

250,000 Student optimum

A SERVICE PROVIDING AND SUPPORTIVE TOLE TO THE INTERMEDIATE DISTRICT, THE LOCAL OR ADMINISTRATIVE UNIT THAT INCLUDES:

a. Data processing and computer operation
b. School plant planning and building programs
c. Research and development

State Administrative Unit

A SERVICE PROVIDING ROLE TO ALL DISTRICTS TO INCLUDE:

a. Insurance
b. Bus purchases and supervision of safety standards
c. Data processing and computer operation
d. Research and development

Multi-State Units

A SERVICE PROVIDING ROLE TO STATES AND ALL DISTRICTS THAT INCLUDE:

a. Data processing and computer operation
b. Research and development
c. Data banks

CLOSING STATEMENT

Throughout this paper, emphasis has been placed on improving efficiency and economy through the consolidation of services, or centralizing various administrative functions, whenever feasible. It does not necessarily follow, however, that increasing size is good without limit. There are practical limits of size and distance that will tend to reduce efficiency, make communications difficult and tend to "bureauocracize" an organization to the point where local needs are no longer recognized. Some of our larger city districts, such as New York and Chicago, are recognizing this and beginning to take steps to break up their great, monolithic districts into many smaller districts of more manageable size. Size, itself, is not the only factor in achieving economy (although it is probably the single most important), and the goal should be to find that optimum size where efficiency and economy will not be increased significantly by any further increase in size.